REMARKS/ARGUMENTS

Applicants have reviewed and considered the Non-Final Office Action mailed on November 14, 2007, and the references cited therewith. Claims 1-15 are pending in the present application. Claims 1, 2, 8, 9, and 14 are amended. Support for the claim amendments can be found in the claims as originally filed. Reconsideration and allowance of all pending claims are respectfully requested in view of the following remarks.

Request that the Application Be Considered Special

This application, filed on July 2, 2001, has been pending for more than five years. Regarding applications pending more than five years or applications under a third or further action the MPEP provides as follows:

> The supervisory patent examiners should impress their assistants with the fact that the shortest path to the final disposition of an application is by finding the best references on the first search and carefully applying them.
>
> The supervisory patent examiners are expected to personally check on the pendency of every application which is up for the third or subsequent *>Office< action with a view to finally concluding its prosecution.
>
> Any application that has been pending five years should be carefully studied by the supervisory patent examiner and every effort >should be< made to terminate its prosecution. In order to accomplish this result, the application is to be considered "special" by the examiner.

MPEP 707.02.

Because this application has been pending for more than five years, Applicants request that this application be considered special by the Examiner. Applicants also request that the Supervisory Patent Examiner carefully study this application and personally consider any future rejections made in this case, as stated by MPEP 707.02. Applicants further request that the Supervisory Examiner make every effort to terminate prosecution by either issuing valid rejections or by allowing the claims.

Claim Rejections – 35 U.S.C. § 103

The Examiner rejected claims 1-15 under 35 U.S.C. § 103(a) as obvious over WO 96/05873 A1 ("Lina"). This rejection is respectfully traversed. As an initial matter, a reference having substantially similar figures and specification as Lina, namely, EP 0853950 by Lina et al., has been previously cited by the Examiner in the Office Action dated May 10, 2004 in combination with other references. However, that rejection has been overcome in light of the Applicant's arguments. See, e.g., Office Action dated February 7, 2006, page 2. Because similar arguments may be applied to the currently applied reference of Lina, this rejection should now also be overcome. Nonetheless, with regard to claim 1, the Examiner states that:

> With respect to **claim 1:** Lina teaches an apparatus for applying negative pressure therapy to a wound site, which comprises an open celled foam pad 36 for application to the wound, a suction tube in the collective form of hoses 37 and 38 connecting the foam pad 36 to a collection canister 19, a tube 62 connecting the canister 19 to a vacuum pump 84, and a pressure detector in the form of transducer 75 connected to tube 62 via branch tube 93 for indicating when the pressure in the suction tube 37,38 (which is equal to the pressure in tube 62 due to the dampening effect contributed by restrictor 89) crosses a predetermined level.
>
> Lina does not explicitly teach a wall suction source, however a wall suction source is an example of a vacuum pump and performs a substantially identical function to the vacuum pump taught by Lina. Thus, it would be obvious to one of ordinary skill in the art to substitute a wall suction source for the suction pump taught by Lina with a reasonable expectation of success to ensure that the suction function of the instant apparatus is preserved while the device is stationary or when the device is used portably with the instant vacuum pump.
>
> Lina does not teach that the pressure detector 75 is connected by a branch tube to suction tube 37,38 leading from the foam pad 36 to the canister 19. However, Lina does teach that restrictor 89 acts as a damper to pressure changes in tube 62 (i.e. effectively zeroing the pressure changes in tube 62) whose dampening effects cause the pressure measured by transducer 75 to be an accurate indication of actual wound site pressure. Since the pressure detector 75 is effectively measuring only wound site pressure, it would be obvious to one of ordinary skill in the art to modify the apparatus of Lina such that transducer 75 is connected

> by a branch tube to suction tube 37,38 leading from the foam pad 36 to the canister 19 with a reasonable expectation of success to preserve the transducer's function of measuring pressure at the wound site. (Page 17, ¶ 2)
>
> Lina teaches that said canister 19 has filter cap 49 that closes an outlet 44 from the canister 19 that is manually operable at any time, including when the canister 19 is full. Filter cap 49 is not explicitly a valve. However since the cap 49 functions as a valve in that it prevents exudate from flowing out of outlet 44 and ultimately contaminating the pump 84, or can allow suction flow to resume when a new empty canister 19 is positioned within the apparatus, it would be obvious to one of ordinary skill in the art to modify the apparatus of Lina so as to include a shut off valve in addition to the filter cap 49 with a reasonable expectation of success, as the primary purpose of the filter cap 49 as taught by Lina is not to regulate flow (though it can) but to prevent contamination of filter body 48. (Page 7, ¶3, Page 10, ¶3, Page 17, ¶¶ 1-3)

Office Action dated November 14, 2007, pages 3 and 4.

Amended claim 1, which is representative of claims 8 and 14, is as follows:

> 1. Apparatus for applying negative pressure therapy to a wound site, which comprises an open celled foam pad for application to the wound site, a suction tube connecting the open celled foam pad to a collection canister, said collection canister having a shut-off valve which closes an outlet from the collection canister in response to the collection canister being full, a tube connecting the collection canister to a wall suction point, and a pressure detector connected to the suction tube between the open celled foam pad and the collection canister for indicating when the pressure in the suction tube crosses a predetermined level.

No *prima facie* obviousness rejection can be made against amended claim 1 because Lina fails to teach or suggest all of the features of amended claim 1. Furthermore, Lina may not be modified in the manner proposed by the Examiner because the Examiner fails to state a sufficient reason to modify Lina under *KSR Int'l. Co. v. Teleflex, Inc.*, 127 S.Ct. 1727 (U.S. Apr. 30, 2007). In addition, the modification of Lina proposed by the Examiner renders Lina unsatisfactory for Lina's intended result, and changes the principle of operation of Lina.

I. Lina Fails to Teach or Suggest All of the Features of Claim 1

The Examiner bears the burden of establishing a *prima facie* case of obviousness based on prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *KSR Int'l. Co. v. Teleflex, Inc.*, 127 S.Ct. 1727 (U.S. Apr. 30, 2007) (citing *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006)). Additionally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka,* 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

A *prima facie* obviousness rejection cannot be stated because Lina does not teach or suggest all of the features of amended claim 1. Specifically, Lina fails to teach or suggest (1) the feature of a "collection canister having a shut-off valve which closes an outlet from the collection canister in response to the collection canister being full," (2) the feature of "a tube connecting the collection canister to a wall suction point," and (3) the feature of "a pressure detector connected to the suction tube between the open celled foam pad and the collection canister for indicating when the pressure in the suction tube crosses a predetermined level."

I.A. Lina fails to teach or suggest the feature of a collection canister having a shut-off valve which closes an outlet from the collection canister in response to the collection canister being full

Lina fails to teach or suggest the feature of a collection canister having a shut-off valve which closes an outlet from the collection canister in response to the collection canister being full. As an initial matter, the Examiner admits that filter cap 49, which the Examiner cites against the feature of a shut-off valve, "is not explicitly a valve." Office

Action dated November 14, 2007, page 4. Additionally, because Lina is devoid of disclosure in this regard, nothing in Lina suggests this claimed feature.

Nonetheless, the Examiner cites various portions of Lina with respect to this claimed feature. Each of these portions will be addressed in turn to show that Lina does not teach or suggest the claimed feature. The Examiner first cites the following portion of Lina, which is presented below along with Figures 6 and 8, which illustrate filter cap 49:

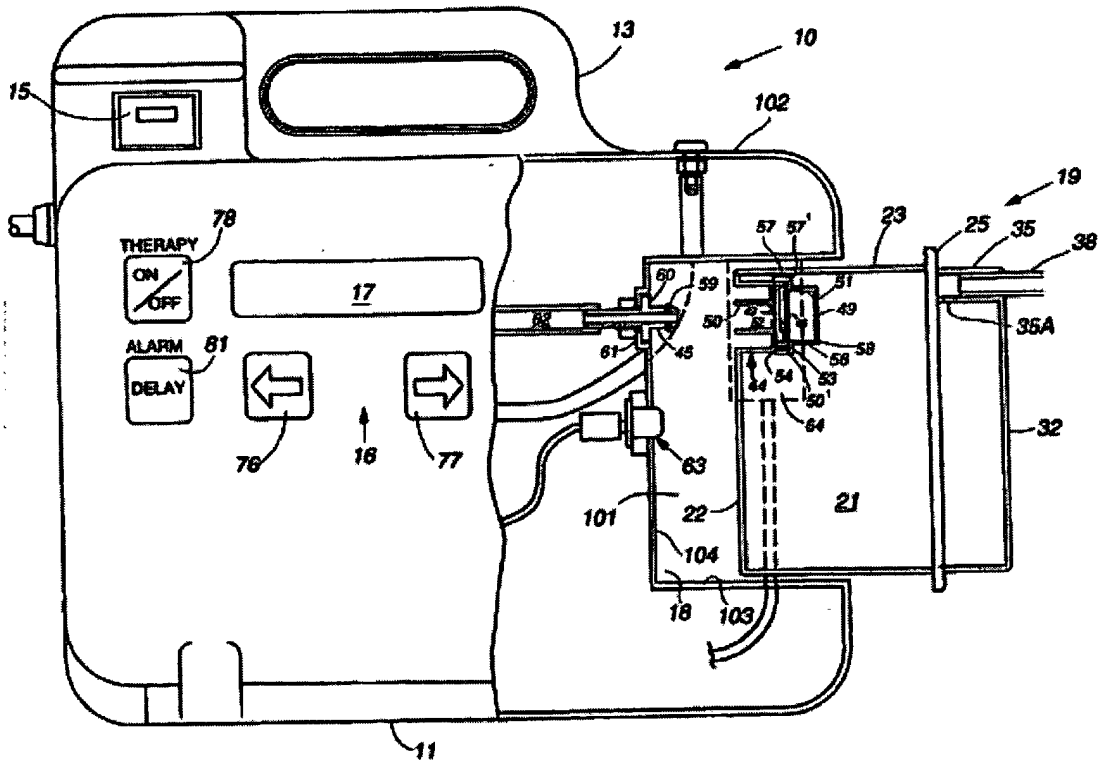

FIG.6

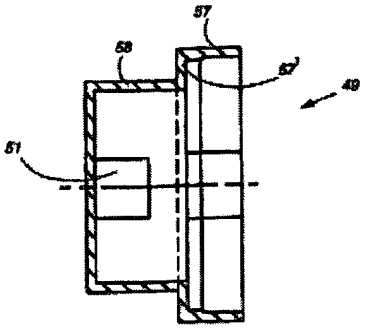

FIG.8

> In order to prevent liquids sucked into the canister from splashing directly onto cap 49, which masks the outlet 44, and to reduce foaming within the canister, inlet 35 has a blind inner end. Inlet 35 has a slot 35A so that drainage fluid is deflected downwardly into the raised handle portion 32 of the canister. Handle portion 32 may communicate with the main part of the canister through one or more holes in wall 25. It is desirable to avoid foaming because this can give a false reading when a capacitance sensing device is used to sense when the canister is filled. An anti-foaming material, e.g. a silicone may be added to the canister, e.g. by coating the interior walls. It may also be advantageous to include a gel-forming substance, e.g. a polyacrylamide or modified starch in order to immobilise the drainage fluid. This is particularly useful if the apparatus is likely to be tilted.

Lina, Figures 6 and 8 and page 7, paragraph 3.

Neither the cited portions nor any other portion of Lina teach or suggest the feature of a collection canister having a shut-off valve which closes an outlet from the collection canister in response to the collection canister being full. Lina discloses a therapeutic apparatus that stimulates the healing the wounds. Most of the components of Lina's apparatus, including the vacuum pump, are located in a housing that includes a recess for receiving canister 19. The cited portion of Lina discloses the components of canister 19 designed to prevent the splashing and foaming of fluid that is sucked into canister 19. Specifically, the cited portion discloses slot 35A, which deflects fluid in a downward direction, thereby preventing the fluid from splashing onto filter cap 49.

However, the cited portion nowhere teaches or suggests a responsive relationship between a valve and the fullness of canister 19, as claimed.

On the other hand, amended claim 1 recites the feature of a collection canister having a shut-off valve which closes an outlet from the collection canister in response to the collection canister being full. The cited portions differ from the claimed feature because, even assuming, *arguendo*, that filter cap 49, inlet 35, or inlet slot 35A are the same as a "valve," the cited portions still teach or suggest no "in response to" relationship between the closure of filter cap 49, inlet 35, or inlet slot 35A and the fullness of canister 19, as claimed. In fact, filter cap 49, inlet 35, or inlet slot 35A function in the same way regardless of whether canister 19 is full. Furthermore, the cited portions fails to teach or suggest that inlet 35 and inlet slot 35A close at all, and instead disclose only that inlet 35 and inlet slot 35A redirect the directional flow of fluid entering canister 19, which is not the same as closing an outlet. Therefore, the cited portions fail to teach or suggest this claimed feature. Next the Examiner cites the following portion of Lina:

> In removing fluids from a wound utilizing wound closure apparatus 10, a major safety concern is preventing wound fluids from contaminating the vacuum pump. Accordingly, filter 46 mounts over outlet 44 utilizing filter carrier 48 and filter cap 49 to block the flow of wound fluids to outlet 44 so that wound fluids remain within canister 19 and do not flow into the vacuum pump. In this preferred embodiment, filter 46 is a 0.2 micron hydrophobic membrane filter providing a bacterial barrier, although other filters may be substituted as appropriate.
>
> As illustrated in Figure 7, filter carrier 48 includes face 53 formed integrally with lip 54. Face 53 includes groove 56 formed therein, while lip 54 supports brace 55 in its interior. Filter 46 fits within groove 56 of face 54 and is supported within filter carrier 48 by brace 55 of lip 54. An 'O' ring 53A is fitted in peripheral recess of filter carrier 48 to accommodate manufacturing tolerances and ensure a fluid tight seal in filter cap 49.

Lina, page 10, paragraphs 2 and 3.

The cited portion discloses filter 46, which utilizes filter carrier 48 and filter cap 49 to block the flow of fluid from canister 19 to the vacuum pump located within the

housing. Again, however, the cited portion fails to teach or suggest any relationship, let alone a responsive relationship, between the closure of filter 46, filter carrier 48, or filter cap 49 and the fullness of canister 19. Because filter 46, filter carrier 48, and filter cap 49 close outlet 44 to prevent fluid from flowing into the vacuum pump regardless of the fullness of canister 19, filter 46, filter carrier 48, and filter cap 49 do not close outlet 44 in response to canister 19 being full, as claimed. Thus, the cited portion fails to teach or suggest the claimed feature. Lastly, the Examiner cites the following portion of Lina:

> In the preferred embodiment, an orifice of 0.5 mm diameter is especially preferred for bleed valve 86. Valve 86 or the equivalent is particularly important for enabling intermittent application of negative pressure, as the orifice allows for gradual release of the negative pressure (over a period of about fifteen seconds) when the pump motor 83 is de-actuated. Bleed valve 86 is positioned outside housing 11 to facilitate un-clogging of aperture 86 in the event of a blockage. An aperture is provided in bleed valve 86, which is machined from stainless steel. Flow control orifices would be alternatives.
>
> Line 62 also includes T-connector 91 to connect it with line 92. Line 92 is connected to tank 94 which acts as a damper to pressure changes in line 62. This dampening effect, facilitated by restrictor 89 in line 93 between transducer 75 and T-junction 91, causes the pressure measured by transducer 75 to be an accurate indication of actual wound site pressure. Transducer 75 communicates with line 62 via line 93 to measure tank 94 pressure and produce an electrical signal representative of that pressure. Transducer 75 outputs its pressure signal to microcontroller 72.
>
> Microcontroller 72 utilizes the pressure signal to control the speed of pump motor 83. As previously described, the user selects either a default vacuum pump pressure or a desired vacuum pump pressure for the operation of wound closure apparatus 10. After receiving the wound pressure signal from transducer 75, microcontroller 72 compares the wound pressure with the user selected pressure. If the wound pressure is higher than the user selected vacuum pump pressure, microcontroller 72 reduces pump motor speed to decrease vacuum pump pressure and thus the pressure at the wound.

Lina, page 17, paragraphs 1-3.

The cited portion discloses bleed valve 86, which is located outside of housing 11 and allows for the release of negative pressure. As initial matter, the cited portion

discloses that bleed valve 19 is located outside of housing 11. Therefore, bleed valve is not part of canister 19, and canister 19 does not "hav[e]" bleed valve 64, as claimed. However, even assuming, *arguendo*, that that canister 19 "has" bleed valve 64, as claimed, the cited portion differs from the claimed feature because the cited portion fails to teach or suggest that bleed valve closes in response to canister 19 being full. In fact, the cited portion fails to teach or suggest that the closure of bleed valve 86 responds in any way to the fullness of canister 19. Therefore, neither the cited portions nor any other portion of Lina teach or suggest the feature of a collection canister having a shut-off valve which closes an outlet from the collection canister in response to the collection canister being full. Also, as shown below in Section IV, Lina may not be modified as proposed by the Examiner to teach or suggest this claimed feature because the Examiner's proposed modification changes the principle of operation of Lina.

I.B. Lina fails to teach or suggest the feature of a tube connecting the collection canister to a wall suction point

Lina fails to teach or suggest the feature of a tube connecting the collection canister to a wall suction point. As an initial matter, the Examiner admits that "Lina does not explicitly teach a wall suction source." Office Action dated November 14, 2007, page 3. Additionally, because *Lina* is devoid of disclosure in this regard, nothing in *Lina* suggests this claimed feature.

Although the Examiner cites no portions of Lina with respect to the feature of a wall suction point, the Examiner refers to the vacuum pump disclosed in Lina as suggesting this claimed feature. Lina's vacuum pump is described in the following portions of Lina:

> As illustrated in Figures 1 and 2, front housing 11 and rear housing 12 connect together using any suitable means such as screws and fasteners to provide wound closure vacuum pump 10 with a small, compact, and easily portable carrying case. Consequently, front housing 11 and rear housing 12 connect together to form handle 13 that permits easy carrying of wound closure apparatus 10. Except as maybe otherwise evident from this

> description, the carrying case of vacuum pump 10 is substantially as described and shown in WIPO Design No. DM/032185.
>
> ....
>
> As illustrated in Figures 2, 4 and 6, canister 19 includes outlet 44 that mounts over port 45 to permit wound closure apparatus 10 to draw wound fluids into canister 19. Outlet 44 is cylindrically shaped and formed as an integral part of back wall 22 by outer wall 33 and inner wall 50 which are interconnected by end wall 34. Passageway 52, defined in part by interior wall 50 and in part by filter cap 49, provides the actual conduit for outlet 44 between the interior and exterior of canister 19. The placement of canister 19 within recess 18 such that outlet 44 resides over port 45 couples canister 19 to a vacuum pump. The vacuum pump removes air from canister 19 to create vacuum pressure within canister 19. That vacuum pressure is then transmitted to a wound site through hoses 37 and 38, thereby not only enabling therapeutic use of system 10, but also tending to promote wound drainage. Any wound drainage fluid is then drawn through pad 36 and hoses 37 and 38 into canister 19.

Lina, page 4, last paragraph and page 9, paragraph 2.

The cited portion discloses a vacuum pump that is contained in an easily portable carrying case. The vacuum pump removes air from canister 19 via port 45 and canister outlet 44. However, the cited portion nowhere teaches or suggests that the vacuum pump is a wall vacuum pump.

On the other hand, amended claim 1 recites the feature of a tube connecting the collection canister to a wall suction point. The cited portion differs from the claimed feature because the cited portion nowhere mentions a wall, let alone that the disclosed vacuum pump is a wall vacuum pump. Therefore, neither the cited portion nor any other portion of Lina teaches or suggests the feature of a tube connecting the collection canister to a wall suction point. Furthermore, as shown below in sections II and III, Lina may not be modified to teach or suggest this claimed feature because the Examiner fails to provide a sufficient reason under *KSR Int'l. Co. v. Teleflex, Inc.*, 127 S.Ct. 1727 (U.S. Apr. 30, 2007) to modify Lina in the manner proposed by the Examiner. Furthermore, the Examiner's proposed modification renders Lina unsatisfactory for Lina's intended result.

I.C. Lina fails to teach or suggest the feature of a pressure detector connected to the suction tube between the open celled foam pad and the collection canister for indicating when the pressure in the suction tube crosses a predetermined level

Lina fails to teach or suggest the feature of a pressure detector connected to the suction tube between the open celled foam pad and the collection canister for indicating when the pressure in the suction tube crosses a predetermined level. As an initial matter, the Examiner admits that "Lina does not teach that the pressure detector 75 is connected by a branch tube to suction tube 37,38 leading from the foam pad 36 to the canister 19." Office Action dated November 14, 2007, page 3. Additionally, because *Lina* is devoid of disclosure in this regard, nothing in *Lina* suggests this claimed feature.

Nonetheless, the Examiner cites a portion of Lina with respect to this claimed feature. Specifically, the Examiner cites the following portion of Lina, which is presented below along with Figure 9, which illustrates transducer 75:

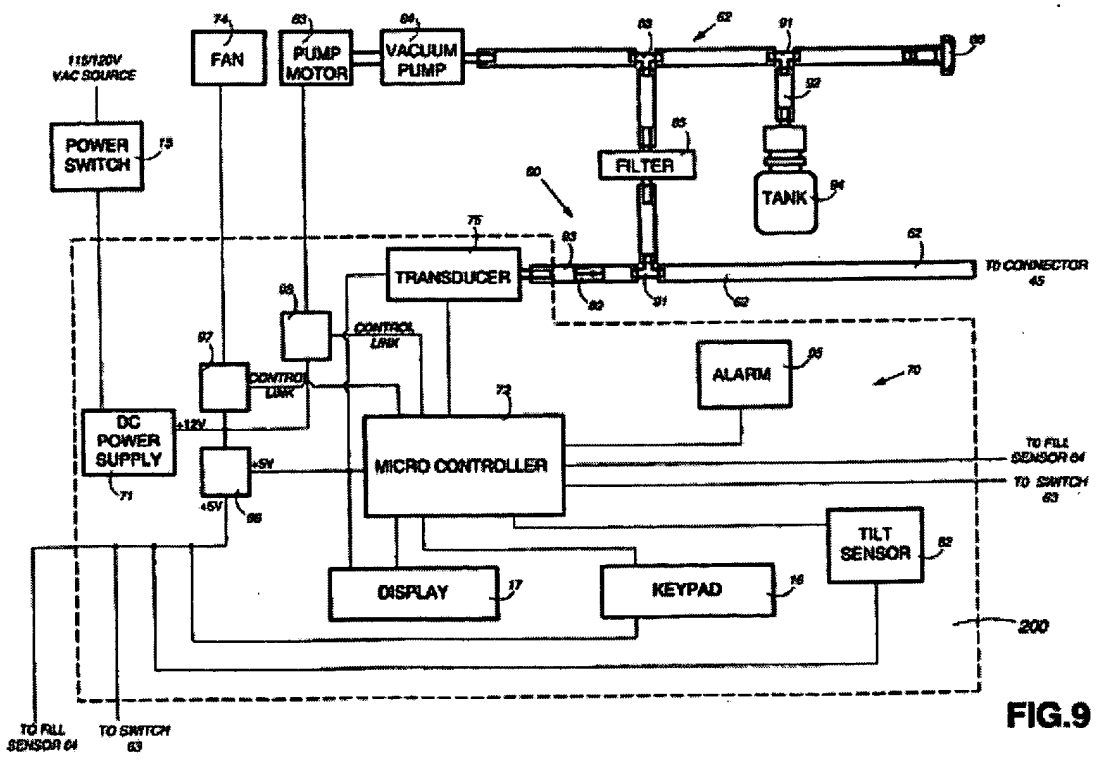

FIG.9

> Line 62 also includes T-connector 91 to connect it with line 92. Line 92 is connected to tank 94 which acts as a damper to pressure changes in line 62. This dampening effect, facilitated by restrictor 89 in line 93 between transducer 75 and T-junction 91, causes the pressure measured by transducer 75 to be an accurate indication of actual wound site pressure. Transducer 75 communicates with line 62 via line 93 to measure tank 94 pressure and produce an electrical signal representative of that pressure. Transducer 75 outputs its pressure signal to microcontroller 72.

Lina, Figure 9 and page 17, paragraph 2.

The cited portions disclose transducer 75, which measures the pressure of tank 94 via lines 62 and 93. Transducer 75 produces an electrical signal that represents the measured pressure and outputs that pressure signal to microcontroller 72. However, the cited portions nowhere teach or suggest that transducer 75 is between canister 19 and a foam pad.

On the other hand, amended claim 1 recites the feature of a pressure detector connected to the suction tube between the open celled foam pad and the collection canister for indicating when the pressure in the suction tube crosses a predetermined level. The cited portion differs from the claimed feature because the cited portion discloses that transducer 75 is at a location that is not between canister 19 and a foam pad. Specifically, although canister 19 and the foam pad are not shown in Figure 9, canister 19 is coupled to tube 62 at the portion of Figure 9 labeled "TO CONNECTOR 45." The foam pad is then coupled to canister 19 at an inlet that is separate than the one that connects to tube 62. Thus, transducer 75 is located at the side of canister 19 that is not coupled to the foam pad, and therefore is not located between canister 19 and the foam pad. Therefore, neither the cited portion nor any other portion of Lina teaches or suggests the feature of a pressure detector connected to the suction tube between the open celled foam pad and the collection canister for indicating when the pressure in the suction tube crosses a predetermined level. Furthermore, as shown in Section II below, Lina may not be modified to teach or suggest this claimed feature because the Examiner fails to provide a sufficient reason under *KSR Int'l. Co. v.*

Teleflex, Inc., 127 S.Ct. 1727 (U.S. Apr. 30, 2007) to modify Lina in the proposed manner.

II. The Examiner Fails to State a Sufficient Reason to Modify the Reference

The Examiner bears the burden of establishing a *prima facie* case of obviousness based on prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The scope and content of the prior art are... determined; differences between the prior art and the claims at issue are... ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or non-obviousness of the subject matter is determined. *Graham v. John Deere Co.*, 383 U.S. 1 (1966). Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. *KSR Int'l. Co. v. Teleflex, Inc.*, 127 S.Ct. 1727 (U.S. Apr. 30, 2007). Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *Id.* (citing *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006)).

In the case at hand, no *prima facie* obviousness rejection can be stated because the Examiner failed to state a sufficient reason to modify Lina in light of the differences between Lina and amended claim 1. Specifically, as shown in Section I, Lina fails to teach or suggest (1) the feature of a "collection canister having a shut-off valve which closes an outlet from the collection canister in response to the collection canister being full," (2) the feature of "a tube connecting the collection canister to a wall suction point," and (3) the feature of "a pressure detector connected to the suction tube between the open celled foam pad and the collection canister for indicating when the pressure in the suction tube crosses a predetermined level." Because Lina fails to teach or suggest at

least these claimed features, major differences exist between the cited reference and amended claim 1 under the *Graham v. John Deere Co.* inquiry set forth above.

Furthermore, the Examiner failed to state a sufficient reason to modify Lina in light of the major differences that exist between the cited reference and amended claim 1. The Examiner failed to state a sufficient reason to modify Lina because the Examiner's proposed reason for modifying Lina provides no rational underpinning to support a legal conclusion of obviousness. In particular, the Examiner fails to provide a sufficient reason to modify Lina such that Lina teaches or suggests the feature of a tube connecting the collection canister to a wall suction point, and the feature of a pressure detector connected to the suction tube between the open celled foam pad and the collection canister for indicating when the pressure in the suction tube crosses a predetermined level.

Regarding the feature of a tube connecting the collection canister to a wall suction point, the Examiner states that:

> Lina does not explicitly teach a wall suction source, however a wall suction source is an example of a vacuum pump and performs a substantially identical function to the vacuum pump taught by Lina. Thus, it would be obvious to one of ordinary skill in the art to substitute a wall suction source for the suction pump taught by Lina with a reasonable expectation of success to ensure that the suction function of the instant apparatus is preserved while the device is stationary or when the device is used portably with the instant vacuum pump.

Office Action dated November 14, 2007, page 3.

The Examiner offers an advantage as the stated reason for modifying Lina in the manner proposed by the Examiner. Specifically, the Examiner proposes modifying Lina "to ensure that the suction function of the instant apparatus is preserved while the device is stationary or when the device is used portably with the instant vacuum pump." However, the Examiner fails to provide a sufficient reason to modify Lina because Lina already achieves the advantage set forth by the Examiner. In particular, Lina's wound closure apparatus may be used as a portable device, as well as a stationary device. For example, Lina states that "[a]rm 14 and its corresponding arm may also be used to

permit hanging of apparatus 10 from a hospital bed foot board." Because Lina already achieves the advantage cited by the Examiner, one of ordinary skill in the art would not be motivated to modify Lina as proposed by the Examiner, and the cited advantage cannot provide a rational underpinning to support a legal conclusion of obviousness. Thus, the Examiner's reason for modifying Lina provides insufficient basis for modifying Lina in the manner proposed by the Examiner, especially in light of the major differences that exist between the cited reference and amended claim 1. Accordingly, no *prima facie* obviousness rejection has been stated against amended claim 1.

Regarding the feature of a pressure detector connected to the suction tube between the open celled foam pad and the collection canister for indicating when the pressure in the suction tube crosses a predetermined level, the Examiner states that:

> Lina does not teach that the pressure detector 75 is connected by a branch tube to suction tube 37,38 leading from the foam pad 36 to the canister 19. However, Lina does teach that restrictor 89 acts as a damper to pressure changes in tube 62 (i.e. effectively zeroing the pressure changes in tube 62) whose dampening effects cause the pressure measured by transducer 75 to be an accurate indication of actual wound site pressure. Since the pressure detector 75 is effectively measuring only wound site pressure, it would be obvious to one of ordinary skill in the art to modify the apparatus of Lina such that transducer 75 is connected by a branch tube to suction tube 37,38 leading from the foam pad 36 to the canister 19 with a reasonable expectation of success to preserve the transducer's function of measuring pressure at the wound site. (Page 17, ¶ 2)

Office Action dated November 14, 2007, page 3.

The Examiner attempts to rearrange the parts of Lina's apparatus "such that transducer 75 is connected by a branch tube to suction tube 37,38 leading from the foam pad 36 to the canister 19." Regarding the rearrangement of the parts of a reference in an obviousness rejection, the MPEP states that:

> The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art,

> without the benefit of appellant's specification, to make the necessary changes in the reference device.

MPEP, Section 2144.04, VI.C., entitled "Rearrangement of Parts" (citing *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).

In the case at hand, the Examiner attempts to modify Lina by rearranging the location of transducer 75 by connecting transducer 75 to a suction tube between the foam pad and canister 19 via a branch tube. Regarding a reason to rearrange Lina's apparatus as such, the Examiner states only that doing so would "preserve the transducer's function of measuring pressure at the wound site," but provides no reason or motivation for one of ordinary skill to the art to actually make the modification. For example, the Examiner provides no advantage to changing the location of transducer 75 that isn't already achieved by Lina's apparatus. Even assuming, *arguendo*, that the Examiner's modification functions as proposed by the Examiner, the Examiner's modification merely preserves the functionality of Lina's apparatus, and offers no advantage over the apparatus disclosed by Lina. Because the Examiner offers no reason or motivation, let alone a sufficient reason or motivation, for the Examiner's proposed modification, no rational underpinning is provided to support a legal conclusion of obviousness. Thus, the Examiner's reason for modifying Lina provides insufficient basis for modifying Lina in the manner proposed by the Examiner, especially in light of the major differences that exist between the cited reference and amended claim 1. Accordingly, no *prima facie* obviousness rejection has been stated against amended claim 1.

III. The Proposed Modification Renders Lina Unsatisfactory for Lina's Intended Purpose

The Examiner has failed to state a *prima facie* obviousness rejection because the proposed modification renders Lina unsatisfactory for Lina's intended purpose. "If [the] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed

modification." MPEP 2143.01 (citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

An intended purpose of Lina is to provide self-contained wound closure apparatus that may be transported in a small, compact, and portable carrying case. Lina describes this intended purpose in the following portion, which is reproduced below along with Figure 1:

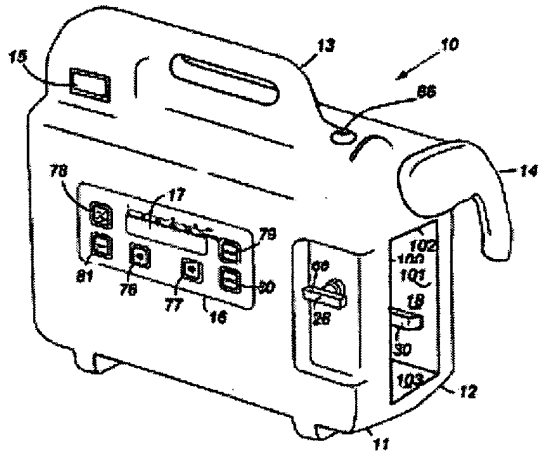

FIG.1

> It is another object of the present invention to render technology like that disclosed in WO 93/09727 available in a convenient, compact and self-contained, efficient and economically feasible system. It is also an object to optimize the safety and effectiveness of such a device, particularly from an infection control standpoint.
>
> ....
>
> As illustrated in Figures 1 and 2, front housing 11 and rear housing 12 connect together using any suitable means such as screws and fasteners to provide wound closure vacuum pump 10 with a small, compact, and easily portable carrying case. Consequently, front housing 11 and rear housing 12 connect together to form handle 13 that permits easy carrying of wound closure apparatus 10. Except as maybe otherwise evident from this description, the carrying case of vacuum pump 10 is substantially as described and shown in WIPO Design No. DM/032185.

Lina, page 3, paragraph 3 and page 4, last paragraph (emphasis added).

Thus, modifying Lina in such a way as to detract from Lina's intended purpose of providing a self-contained wound closure apparatus that may be transported in a small, compact, and portable carrying case, such as by modifying Lina's apparatus to have a wall vacuum pump, would defeat the entire purpose of Lina. The Examiner's proposed modification renders Lina unsatisfactory for Lina's intended purpose because the Examiner proposes to "substitute a wall suction source for the suction pump taught by Lina," thereby defeating Lina's entire purpose of providing a self-contained and portable wound closure apparatus. Specifically, Lina's wound closure apparatus would fail to be self-contained and portable if the apparatus required a wall vacuum pump that was located outside of housing 11. Thus, no *prima facie* obviousness rejection has been stated against amended claim 1.

IV. The Proposed Modification Changes the Principle of Operation of Lina

The Examiner has failed to state a *prima facie* obviousness rejection because the proposed combination changes the principle of operation of the primary reference. In combining references to show the claimed feature, the proposed modification cannot change the principle of operation of a reference. See *In re Ratti*, 270 F.2d 810, 123 (CCPA 1959) and MPEP 2143.01. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *Id.*

Lina discloses stopping fluid flow to canister 19 by deactivating pump motor 83, which is coupled to vacuum pump 84. See, Figure 9 above. For example, Lina provides as follows:

> Control system 70 includes fill sensor 64 to provide a signal to microcontroller 72 that indicates when canister 19 is completely filled with wound fluids. After receiving a signal from fill sensor 64, microcontroller 72 deactivates pump motor 83 and fan 74 and activates alarm 95 to signal the user that canister 19 must be replaced.

Lina, page 18, last paragraph.

Thus, the entire principle of operation of Lina's apparatus is to s fluid flow to canister 19 by deactivating pump motor 83 after receiving a signal from fill sensor 64. Lina does not teach or suggest any other mechanism for stopping fluid flow to canister 19 when canister 19 becomes full; indeed, to provide another mechanism for stopping fluid flow to canister 19 when canister 19 becomes full would defeat the entire purpose of Lina's mechanism. Stopping fluid flow to canister 19 when canister 19 becomes full by using any other mechanism, such as by including a shut off valve that is responsive to canister 19 becoming full, would mean modifying, altering, or replacing the principle of operation of Lina's apparatus.

Nonetheless, the Examiner proposes modifying Lina "to include a shut off valve in addition to the filter cap 49." The Examiner's proposed modification changes Lina's principle of operation, namely, stopping fluid flow to canister 19 when canister 19 becomes full by deactivating pump motor 83 after receiving a signal from fill sensor 64, because the Examiner's proposed modification stops fluid flow by including a shut off valve that is coupled to canister 19. Thus, no *prima facie* obviousness rejection has been stated against amended claim 1.

V. Conclusion as to Obviousness

Because amended claim 1 is representative of claims 8 and 14, the same distinctions between amended claim 1 and the references apply to claims 8 and 14. Further, the reference may not be modified in the manner proposed by the Examiner. Accordingly, no *prima facie* obviousness rejection can be made against amended claims 1, 8, and 14. Therefore, no *prima facie* obviousness rejection can be stated against claims 2-7, 9-13, and 15 at least by virtue of their dependency on claims 1, 8, and 14. Additionally, amended claims 2-7, 9-13, and 15 claim other additional combinations of features not taught or suggested by the reference.

For example, Lina fails to teach or suggest the feature of "a flow rate meter for

measuring the rate at which fluid is drawn from the wound site," as recited in claim 5. Claim 5 is as follows:

> 5. Apparatus as claimed in claim 1 which includes a flow rate meter for measuring the rate at which fluid is drawn from the wound site.

Nonetheless, the Examiner cites a portion of Lina with respect to the claimed feature. Specifically, the Examiner cites the following portion of Lina:

> Fill sensor 64 resides adjacent side wall 101, exterior to chamber 18. Fill sensor 64 provides a signal that indicates when canister 19 is filled with wound debris. In this preferred embodiment, fill sensor 64 is a capacitive sensor that mounts on side wall 101 of chamber 18 using any suitable means such as a bracket or appropriate adhesive material. Fill sensor 64 has a sensing profile 64A which determines the point at which the capacitance measurement is made.

Lina, page 11, paragraph 3.

Neither the cited portion nor any other portion of Lina teaches or suggests the feature of a flow rate meter for measuring the rate at which fluid is drawn from the wound site. The cited portion discloses fill sensor 64, which is a capacitive sensor that indicates when canister 19 is filled with wound debris. However, the cited portion nowhere teaches or suggests a device that measures the rate at which fluid enters canister 19.

On the other hand, claim 5 recites the feature of a flow rate meter for measuring the rate at which fluid is drawn from the wound site. The cited portion differs from the claimed feature because the cited portion discloses only that fill sensor 64 detects when canister 19 is full of wound debris, but nowhere mentions a rate at which canister 19 is filled, let alone that fill sensor 64 detects this rate. The cited portion also does not otherwise teach or suggest that fill sensor 64 measures the rate at which fluid is drawn from the wound site. Therefore, Lina fails to teach or suggest the feature of a flow rate meter for measuring the rate at which fluid is drawn from the wound site. Consequently, Applicants have overcome the obviousness rejection of claims 1-15 under 35 U.S.C. § 103.

CONCLUSION

If a Petition for Extension of Time under 37 C.F.R. 1.136(a) is required, the petition is herewith made. The Commissioner is authorized to charge any fees that may be required, or credit any overpayment made with this Office Action, to Deposit Account Number 50-0326.

In light of all the foregoing, believing that all things raised in the Office Action have been addressed, Applicant respectfully requests reconsideration of the prior rejections and objections, as well as allowance of the claims and passage of the application to issue. If the Examiner would care to discuss any remaining matters by phone, Applicant invites the Examiner to contact the undersigned at 214.758.6641.

Respectfully submitted,

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